

ARIZONA DEPARTMENT OF TRANSPORTATION  
INTERMODAL TRANSPORTATION DIVISION  
ENVIRONMENTAL AND ENHANCEMENT GROUP

# **FINAL ENVIRONMENTAL ASSESSMENT**

**AND**

## **SECTION 4(f) EVALUATION**

for

### **I-17 WIDENING DESIGN CONCEPT STUDY**

SR 101L Interchange to New River  
Project No. 017-A(874)  
TRACS No. 017 MA 215 H5162 01L  
Phoenix District – Maricopa County

March 2004

FEDERAL HIGHWAY ADMINISTRATION  
FINDING OF NO SIGNIFICANT IMPACT  
FOR

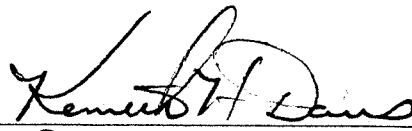
STP-017-A(874)  
TRACS No. 017 MA 215 H5162 01L  
I-17; Loop 101 – New River  
Maricopa County, Arizona

The Federal Highway Administration has determined that this project will not have any significant impact to the human or natural environment. This Finding of No Significant Impact is based upon the attached Environmental Assessment and Section 4(f) Evaluation, which has been independently evaluated by the Federal Highway Administration and determined to adequately discuss the environmental issues and impacts of the proposed project. The Environmental Assessment provides sufficient evidence and analysis for the Federal Highway Administration to determine that an Environmental Impact Statement is not required. The Federal Highway Administration takes full responsibility for the accuracy, scope, and content of the Environmental Assessment and Section 4(f) Evaluation.

This Environmental Assessment and Section 4(f) Evaluation clearly demonstrates that there is no feasible or prudent alternative to the use of the Section 4(f) property and that all planning to minimize the harm to the Section 4(f) property has been accomplished. It is concluded that the use of the historic site (Sun-Up Ranch) is approved.

March 4, 2004

Date

  
for Division Administrator

ARIZONA DEPARTMENT OF TRANSPORTATION  
INTERMODAL TRANSPORTATION DIVISION  
ENVIRONMENTAL AND ENHANCEMENT GROUP  
205 South 17<sup>th</sup> Avenue  
Phoenix, Arizona 85007


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March 2004

Approved by:  Date: 3.3.04  
Richard M. Duarte, Manager  
Environmental and Enhancement Group  
Arizona Department of Transportation

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This Final Environmental Assessment has been prepared in accordance with the provisions and requirements of Title 23, Code of Federal Regulations, Part 771, relating to the implementation of the National Environmental Policy Act of 1969 (42 U.S. Code 4332(2)(c)) and Section 4(f) of the Department of Transportation Act of 1966 (49 U.S. Code 303).



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## PREFACE

The Arizona Department of Transportation (ADOT) and Federal Highway Administration (FHWA) are proposing improvements to I-17 from south of the State Route (SR) 101L Traffic Interchange (TI) at milepost (MP) 214.5 to the New River Road TI (MP 232.0) in Maricopa County, Arizona. A Draft Environmental Assessment (DEA) for the proposed project was approved in October 2003. On November 5, 2003, a public hearing was conducted to receive public comments on the preferred alternative identified in the DEA.

The purpose of this Final Environmental Assessment (FEA) is to respond to the comments received subsequent to the distribution of the DEA and the public hearing, as well as to provide supplemental analyses and factual corrections to the DEA. This FEA is presented in addendum format and must be used in conjunction with the DEA. Deleted text is identified with a ~~striketrough~~, with new or substituted text appearing in *italics*. Throughout the document, references to the “preferred alternative” are changed to “selected alternative,” and uses of the verb “would” are changed to “will,” when referring to the proposed project and selected alternative. Additional changes are listed by the page on which the text is found in the DEA.

This FEA includes the complete list of mitigation measures that have been subdivided into design, construction, and contractor responsibilities. The FEA also includes text changes to the DEA, copies of agency correspondence received subsequent to the DEA distribution (Appendix 1), the public hearing transcript (Appendix 2), and a summary of the public hearing comments with ADOT responses (Appendix 3).





## MITIGATION MEASURES

Mitigation measures have been defined to avoid or minimize the environmental impacts of the selected alternative. These mitigation measures are not subject to change without prior written approval from the Federal Highway Administration. The page numbers in parentheses refer to the Draft Environmental Assessment.

### Design Responsibilities

- During final design, the project plans will be reviewed to verify the extent of encroachment into waters of the United States, and permits required under Sections 401 and 404 of the Clean Water Act will be acquired by the Arizona Department of Transportation (page 28).
- Because one or more acres of land will be disturbed, an Arizona Pollutant Discharge Elimination System permit will be required. The Arizona Department of Transportation Roadside Development Section will determine who will prepare the Storm Water Pollution Prevention Plan (page 29).
- During final design, the Arizona Department of Transportation will prepare a revegetation plan. This plan will include salvaging and transplanting saguaros in the area of disturbance (page 31 32).
- Protected native plants within the construction limits will be impacted by the selected alternative; therefore, the Arizona Department of Transportation Roadside Development Section will notify the Arizona Department of Agriculture at least 60 days prior to the start of construction to afford commercial salvagers the opportunity to remove and salvage any plants not included in the project's revegetation plan (page 32).
- During final design, individual construction segments of the project area will be surveyed by the Arizona Department of Transportation's Natural Resources Section to determine if invasive species ~~were~~ are present within the segment. If invasive species ~~were~~ are found within a given construction segment, these species will be treated prior to construction and any necessary treatments will continue following construction completion (page 32).
- All disturbed soils that will not be landscaped or otherwise permanently stabilized by construction will be seeded using species native to the project vicinity (page 32).
- Retaining walls and noise barriers will be constructed of materials that complement the surrounding landscape's colors and textures. In addition, retaining walls associated with any rock cuts will be compatible with the rugged textures, colors, and lines of the surroundings and with those of the new median retaining walls (page 34).
- The dual New River bridges will be painted to blend with the desert wash nature of their surroundings (page 34).





- Wherever adequate space is available, landscaping will be provided along I-17 in order to minimize visual impacts (page 34).
- Initial Site Assessments will be obtained during final design if right-of-way is required from, or excavation is anticipated on or adjacent to, the properties identified with potential hazardous material contamination. If necessary, remedial measures will be implemented based upon the Initial Site Assessment results (page 40).
- *During final design, the Arizona Department of Transportation will conduct assessments to determine whether the existing load-bearing structures to be modified or removed contain asbestos and whether heavy metals (e.g., lead-based paint) are present on those structures. If these hazardous materials are found as a result of the assessments, the Arizona Department of Transportation will prepare a plan detailing the proper procedures for demolition or modification of those structures and disposal of the asbestos or heavy-metal materials. In addition, the Arizona Department of Transportation will obtain any permits required for the demolition of the structures or disposal of asbestos or heavy-metal materials (page 40).*
- ~~The project will be designed to avoid impacts to cultural resources sites within the project area to the extent possible. Based on the results of the cultural resource survey and a review of the conceptual engineering drawings for the preferred alternative, one cultural resource site will be affected by the project. Every effort to minimize impacts to this site will be made during final design. If these sites the site cannot be avoided, a program of testing and/or data recovery program will be implemented during final design to mitigate the impact of project construction on cultural resources sites determine site eligibility and the need for mitigation (page 42).~~

#### Phoenix Construction District Responsibilities

- In accordance with Arizona Pollutant Discharge Elimination System requirements, the Phoenix Construction District will submit the Notice of Intent and the Notice of Termination to the Arizona Department of Environmental Quality (page 29).
- The Phoenix Construction District will provide a construction notice to adjacent residents and businesses at least two weeks prior to construction (page 48).

#### Contractor Responsibilities

- All discarded waste (including but not limited to human waste, trash, debris, oil drums, fuel, ashes, equipment, concrete, and chemicals) generated during construction activities shall be removed and/or disposed according to federal and state regulations (page 29).
- In accordance with Arizona Pollutant Discharge Elimination System requirements, the contractor shall submit the Notice of Intent and the Notice of Termination to the Arizona Department of Environmental Quality (page 29).



- If Sonoran desert tortoises ~~were~~ *are* encountered during construction, personnel shall comply with the Arizona Game and Fish Department's Guidelines for Handling Sonoran Desert Tortoises found in Appendix C (page 31).
- All disturbed soils that will not be landscaped or otherwise permanently stabilized by construction shall be seeded using species native to the project vicinity (page 32).
- All earth-moving and hauling equipment shall be washed at the contractor's storage facility prior to arriving on site to prevent the introduction of invasive species seed (page 32).
- If invasive species ~~were~~ *are* found within a given construction segment, the contractor shall be required to wash all earth-moving and hauling equipment prior to leaving the construction site in order to prevent the spread of invasive species seed to uncontaminated areas. The contractor shall notify the Arizona Department of Transportation Natural Resources Section of the location of any proposed wash sites prior to their operation (page 32).
- Construction of the project shall comply with Maricopa County Air Quality Rule 310 – Fugitive Dust Sources and any required air quality permits (page 36).





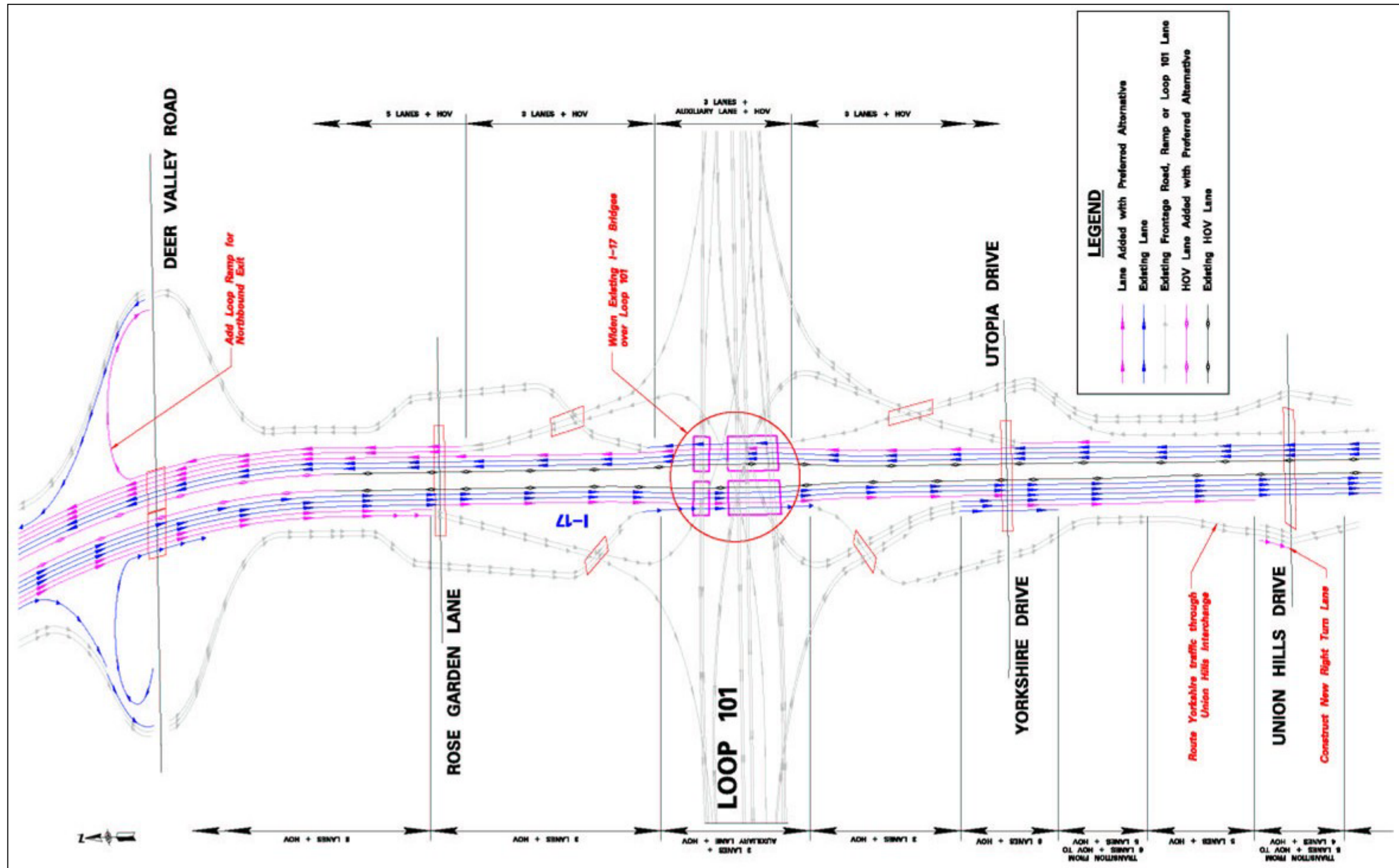
## CHANGES TO THE DRAFT ENVIRONMENTAL ASSESSMENT

- Throughout the document, all references to Daisy Mountain Road are corrected as follows: “Daisy Mountain ~~Road~~ Drive.”
- Throughout the document, all references to Dixileta Road are corrected as follows: “Dixileta ~~Road~~ Drive.”
- Page v – The following listings are inserted into the glossary of acronyms:  
“FEA        *Final Environmental Assessment*  
RTP        *Regional Transportation Plan*”
- Page 3 – The third sentence of the fourth paragraph is updated as follows: “The project area (Figure 3) includes 40 ~~11~~ TIs, located at Utopia Drive/Yorkshire Drive, SR 101L (Beardsley Road), Rose Garden Lane, Deer Valley Road, Pinnacle Peak Road, Happy Valley Road, Carefree Highway (SR 74), Pioneer Road, *Daisy Mountain Drive*, Anthem Way ...”
- Page 3 – The fourth sentence of the fourth paragraph is deleted.
- Page 3 – The second sentence of the last paragraph is amended to read: “On northbound I-17, two general purpose lanes plus an HOV lane and auxiliary lane currently exist north of Yorkshire Drive/Utopia Drive through the main body of the TI ~~and north of Rose Garden Lane~~, with short ...”
- Page 7 – The following is inserted following the fourth full paragraph: “*To model future traffic volumes in the study corridor, the analysis was performed using an enhanced version of MAG’s planned 2020 street network, which includes a wider I-17 mainline, new TIs between Happy Valley Road and Carefree Highway, the Daisy Mountain Drive TI, and arterial street improvements.*”
- Page 8 – The second bullet item is deleted.
- Page 13 – The last sentence of the first full paragraph is deleted.
- Page 13 – The following text is inserted following the third paragraph: “*On November 25, 2003, MAG approved a new Regional Transportation Plan (RTP) that supersedes the LRTP (MAG 2003). The RTP specifies widening I-17 within the project area; however, the RTP’s recommended widening for I-17 is fiscally constrained and is therefore less extensive in scope than the improvements proposed in this document. MAG anticipates that the RTP will be updated in the near future to reflect FHWA and ADOT’s acceptance of the selected alternative.*”
- Page 16 – The second sentence of the second bullet item is updated to read: “In addition, the recently completed Daisy Mountain ~~Road~~ Drive TI ~~currently under construction~~ would not accommodate this alternative.”



- Page 17 – The second sentence of the second paragraph is amended as follows: “*The Construction of the new frontage roads would be constructed by the responsibility of the City of Phoenix in conjunction with the construction vicinity of new the planned TIs at Jomax Road, Dixileta Road Drive, Lone Mountain Road, and Dove Valley Road.*”
- Page 18 – The fourth full paragraph is deleted and replaced with the following: “*To accommodate the additional lanes, the bridges over Deer Valley Road, Skunk Creek, CAP Canal, Deadman Wash, the New River, and New River Road will require widening. The TI overpasses at Pinnacle Peak Road, Happy Valley Road, and Pioneer Road will require modification or replacement.*”

➤ Page 19 – Figure 7 is deleted and replaced with the following figure:





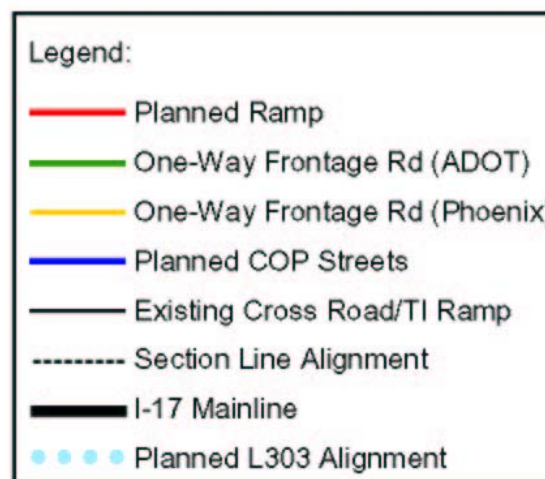
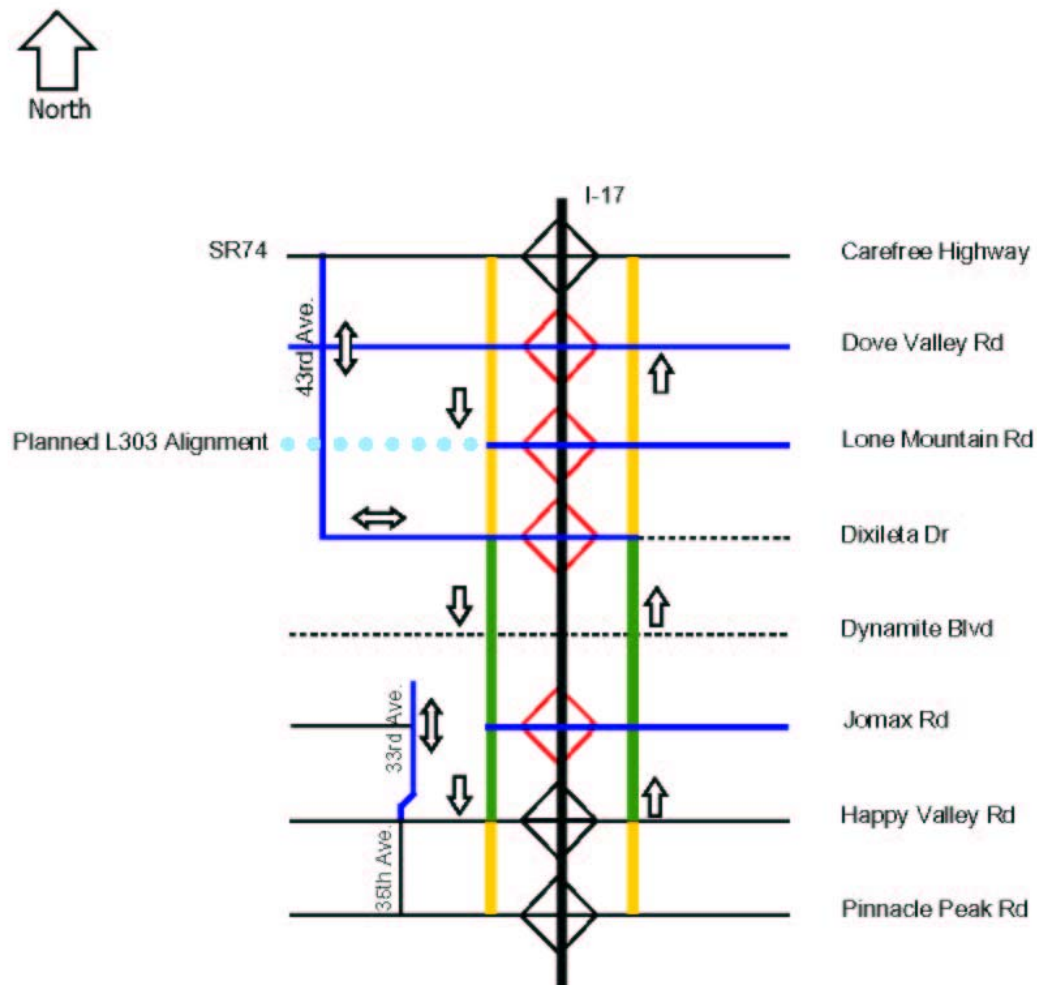


- Page 21 – The second and third sentences of the second full paragraph are amended as follows: “As with the two-way frontage road alternative (page 17), *construction of* the new roads will be ~~constructed by the responsibility of~~ the City of Phoenix in ~~conjunction with the construction vicinity of new~~ *the planned* TIs at Jomax Road, Dixileta Drive, Lone Mountain Road, and Dove Valley Road, *and.* ~~One-way frontage roads would also be constructed by the City of Phoenix~~ between Pinnacle Peak Road and Happy Valley Road.”





➤ Page 22 – Figure 8 is deleted and replaced with the following figure:





- Page 28 – The third sentence of the first full paragraph is corrected as follows: “In addition, the existing culverts that convey storm water under I-17 along Scatter Wash will be extended and ~~an additional culvert~~ *two new concrete box culverts (CBC)* will be constructed ...”
- Page 28 – The last sentence of the third full paragraph is updated as follows: “The ~~COE’s concurrence in~~ *COE approved* the jurisdictional determination ~~would be obtained prior to publication of the final environmental document on January 21, 2004. The COE letter is provided in Appendix 1 of the Final Environmental Assessment (FEA).~~”
- Page 28 – The first sentence of the fourth full paragraph is updated to read: “~~Sixteen~~ *Nineteen* jurisdictional washes traverse the project area.”
- Page 28 – The third sentence of the fourth full paragraph is corrected as follows: “The crossing of Scatter Wash and other unnamed drainages will require the *construction of new CBCs and/or the extension of existing* ~~concrete box culverts (CBC)~~ *CBCs* or corrugated metal pipes (CMP).”
- Page 29 – Table 6 is updated as follows:

| Crossing No.     | Location (MP)        | Type of work                            | Area of impact (acres) |
|------------------|----------------------|-----------------------------------------|------------------------|
| 1                | 216.6 (Scatter Wash) | Extend CBC, <i>install two new CBCs</i> | 0.05                   |
| 2                | 216.7                | Extend CBC                              | 0.06                   |
| 3                | 219.1 (Skunk Creek)  | Widen bridge                            | 0.13                   |
| 4                | 223.2                | Extend CBC                              | 0.23                   |
| 5                | 223.4                | Extend CMP                              | 0.06                   |
| 6                | 224.1                | Extend CMP                              | 0.01                   |
| 7                | 224.1                | Extend CMP                              | 0.01                   |
| 8                | 224.6                | Extend CBC                              | 0.03                   |
| 9                | 225.0                | Extend CBC                              | 0.03                   |
| 10               | 225.2                | Extend CBC                              | 0.03                   |
| 11               | 226.9 (Deadman Wash) | Widen bridge                            | 0.26                   |
| 12               | 227.3                | Extend CBC                              | 0.04                   |
| 13               | 229.5                | <i>No Action</i>                        | <i>0.00</i>            |
| 14               | 230.5                | <i>No Action</i>                        | <i>0.00</i>            |
| <del>13</del> 15 | 230.9                | Extend CBC                              | 0.01                   |
| <del>14</del> 16 | 231.2                | Extend CBC                              | 0.05                   |
| <del>15</del> 17 | 231.4 (New River)    | Widen bridge                            | 0.33                   |
| 18               | 232.2                | <i>Extend CMP</i>                       | <i>0.01</i>            |
| <del>16</del> 19 | 232.5                | Extend CBC                              | 0.33                   |

- Page 33 – The second and third sentences of the fourth full paragraph are corrected as follows: “Substantial changes will occur in the visual environment of I-17 between Pioneer Road and Daisy Mountain ~~Road~~ *Drive* due to the loss of the horizontal and vertical separation of the mainlines, construction of ~~retaining walls and centerline~~ *a median* barrier, and widening of the existing dual bridges and ~~installation of bank stabilization~~ at the Deadman Wash crossing. Notable changes will occur at the New River crossing, where the



dual bridges will be ~~rebuilt~~ *widened* and the wash slopes stabilized.”

- Page 33 – The last sentence of the last paragraph is corrected to read: “In addition, notable changes will occur due to construction of a ~~retaining wall and~~ median barrier at the ...”
- Page 37 – The last sentence of the second full paragraph is corrected as follows: “Noise receiver locations are ~~shown~~ *described* in Appendix F.”
- Page 40 – The following text is inserted after the last paragraph: “*During final design, ADOT will conduct assessments to determine whether the existing load-bearing structures to be modified or removed contain asbestos and whether heavy metals (e.g., lead-based paint) are present on those structures. If these hazardous materials are found as a result of the assessments, ADOT will prepare a plan detailing the proper procedures for demolition or modification of those structures and disposal of the asbestos or heavy-metal materials. In addition, ADOT will obtain any permits required for the demolition of the structures or disposal of asbestos or heavy-metal materials.*”
- Page 46 – The following text is inserted at the end of the third paragraph: “*In addition, the City of Phoenix is currently planning the construction of a new secondary access road to serve the existing developed area north of Happy Valley Road on the west side of I-17. This road is anticipated to be completed in early 2005.*”
- Page 52 – In Table 18, the entry in the second row corresponding to APS, third column, is amended as follows: “Cross I-17 at Rose Garden Lane, MP 217.25, MP 219.00 ...”
- Page 62 – The second paragraph is updated as follows: “A public hearing for the proposed project ~~presented in this DEA is tentatively planned for late~~ *was held at the Deer Valley Community Center on November 5, 2003, from 6:00 to 8:00 p.m. The purpose of the hearing was to present the preferred alternative for improving mainline I-17 from SR 101L to New River Road and to receive public comments on the proposed improvements. The hearing was advertised in the Arizona Republic and the Desert Advocate. Prior to the hearing, the DEA was available for public review at the Juniper Branch of the Phoenix Public Library, at the New River Elementary School, and on the project web site.*

*The meeting was an open house format with exhibits of the preferred alternative located throughout the room. FHWA, ADOT, local government, and consultant representatives were available to answer questions. A presentation was given at 6:30 p.m. The presentation began with an explanation of the study process and how it had progressed since the last public information meeting. The preferred alternative was described in detail and an overview of the environmental impacts was given. The floor was then opened for a question and answer session. The hearing proceedings were recorded by a court reporter. The public hearing transcript is provided in Appendix 2 of the FEA. The court reporter was available to record comments following the question and answer session, and information packets including a comment sheet were provided to offer opportunities for the public to provide comments to the Study Team.*



*One hundred persons signed in at the hearing. Eighteen comments were received following the public hearing. Most comments were in favor of the proposed improvements, but included concerns regarding the project schedule, traffic control during construction, implementation of frontage roads, and related TI studies. A summary of agency and public comments received following distribution of this the DEA during the public hearing comment period, as well as ADOT responses, would be is provided in Appendix 3 of the final environmental document FEA.”*

- Page 64 – The following is inserted after the third MAG listing: “—2003. *Regional Transportation Plan.*”
- Page A-10 – In the upper typical section, the text below the existing frontage road on the right side is corrected as follows: “Existing Frontage Road Anthem Way to New River TI To Remain ~~In Place~~ *In Place.*” (The frontage road is outside ADOT R/W north of Anthem Way.)